

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-3. (Cancelled)

4. (Currently Amended) A method for ~~preventing, treating or delaying a~~ neoplasm which expresses ErbB-3 in a mammal, which method comprises administering to a mammal, to which such ~~prevention, treatment or delay~~ is needed or desirable, an effective amount of an ErbB-3 protein or a nucleic acid encoding said ErbB-3 protein, whereby an immune response is generated against said neoplasm, wherein the ErbB-3 protein is a fragment of the extracellular domain of ErbB3 and comprises:

- (a) the amino acid sequence set forth in SEQ ID NO:3; or
- (b) amino acid residues 24-81 of the amino acid sequence set forth in SEQ ID NO:14; or
- (c) amino acid residues 2-139 of the amino acid sequence set forth in SEQ ID NO:16,

wherein the ErbB-3 protein is not the entire extracellular domain of ErbB3.

5. (Cancelled)

6. (Previously Presented) The method of claim 4, further comprising administering an immune response potentiator to the mammal.

7. (Cancelled)

8. (Cancelled)

9. (Currently Amended) The method of claim 4, wherein the ErbB-3 protein or the nucleic acid encoding said ErbB-3 protein is co-administered with a pharmaceutically acceptable carrier or excipient.

10. (Currently Amended) The method of claim 4, wherein the ErbB-3 protein or the nucleic acid encoding said ErbB-3 protein is co-administered with an anti-neoplasm agent.

11. (Previously Presented) The method of claim 10, wherein the anti-neoplasm agent is selected from the group consisting of an anti-angiogenic agent, an alkylating agent, an antimetabolite, a natural product, a platinum coordination complex, an anthracenedione, a substituted urea, a methylhydrazine derivative, an adrenocortical suppressant, a hormone, an antagonist, an oncogene inhibitor, a tumor suppressor gene or protein, an anti-oncogene antibody and an anti-oncogene antisense oligonucleotide.

12. (Currently Amended) The method of claim 4, wherein the neoplasm to be ~~prevented, treated or delayed~~ is selected from the group consisting of adrenal gland, anus, auditory nerve, bile ducts, bladder, bone, brain, breast, bruccal, central nervous system, cervix, colon, ear, endometrium, esophagus, eye, eyelids, fallopian tube, gastrointestinal tract, head and neck, heart, kidney, larynx, liver, lung, mandible, mandibular condyle, maxilla, mouth, nasopharynx, nose, oral cavity, ovary, pancreas, parotid gland, penis, pinna, pituitary, prostate gland, rectum, retina, salivary glands, skin, small intestine, spinal cord, stomach, testes, thyroid, tonsil, urethra, uterus, vagina, vestibulocochlear nerve and vulva neoplasm.

13. (Currently Amended) The method of claim 4, wherein the neoplasm to be ~~prevented, treated or delayed~~ is selected from the group consisting of breast, ovary, stomach, prostate, colon and lung cancer.

14. (Currently Amended) The method of claim 4, wherein the neoplasm to be ~~prevented, treated or delayed~~ is breast cancer.

15-43. (Cancelled)

44. (Previously Presented) The method of claim 4, wherein the mammal is a human.

45. (Previously Presented) The method of claim 4, wherein the administering is by intracavernous injection, subcutaneous injection, intravenous injection, intramuscular injection, intradermal injection, oral administration or topical administration.

46. (New) The method of claim 44, wherein the administering is by subcutaneous injection.

47. (New) The method of claim 4, wherein the ErbB-3 protein is administered to the neoplasm *in situ*.

48. (New) The method of claim 47, further comprising administering an immune response potentiator to the neoplasm *in situ*.

49. (New) An isolated nucleic acid molecule, which comprises a nucleotide sequence encoding an ErbB-3 protein, wherein the ErbB-3 protein is a fragment of the extracellular domain of ErbB3 and comprises:

- (a) the amino acid sequence set forth in SEQ ID NO:3; or
- (b) amino acid residues 24-81 of the amino acid sequence set forth in SEQ ID NO:14; or
- (c) amino acid residues 2-139 of the amino acid sequence set forth in SEQ ID NO:16,

wherein the ErbB-3 protein is not the entire extracellular domain of ErbB3.

50. (New) The isolated nucleic acid molecule of claim 49, which is DNA.

51. (New) The isolated nucleic acid molecule of claim 49, which is RNA.

52. (New) A plasmid comprising the nucleic acid molecule of claim 49.

53. (New) A cell comprising the plasmid of claim 52.

54. (New) The cell of claim 53, which is selected from the group consisting of a bacterial cell, a yeast cell, a fungal cell, a plant cell, an insect cell, an animal cell and a human cell.

55. A method for producing an ErbB-3 protein, which method comprises growing the cell of claim 53 under conditions whereby the ErbB-3 protein is expressed by the cell, and recovering the expressed ErbB-3 protein.

56. (New) A substantially purified ErbB-3 protein, wherein the ErbB-3 protein is a fragment of the extracellular domain of ErbB3 and comprises:

- (a) the amino acid sequence set forth in SEQ ID NO:3; or
- (b) amino acid residues 24-81 of the amino acid sequence set forth in SEQ ID NO:14; or
- (c) amino acid residues 2-139 of the amino acid sequence set forth in SEQ ID NO:16,

wherein the ErbB-3 protein is not the entire extracellular domain of ErbB3.

57. (New) A conjugate, which comprises:

- (i) an ErbB-3 protein, wherein the ErbB-3 protein is a fragment of the extracellular domain of ErbB3 and comprises
 - (a) the amino acid sequence set forth in SEQ ID NO:3; or
 - (b) amino acid residues 24-81 of the amino acid sequence set forth in SEQ ID NO:14; or
 - (c) amino acid residues 2-139 of the amino acid sequence set forth in SEQ ID NO:16,

wherein the ErbB-3 protein is not the entire extracellular domain of ErbB3, and

- (ii) a facilitating agent linked to the ErbB-3 protein directly or via a linker, wherein the agent facilitates:
 - (a) affinity isolation or purification of a conjugate;
 - (b) attachment of a conjugate to a surface; or
 - (c) detection of a conjugate.

58. (New) The conjugate of claim 57, which is a fusion protein.

59. (New) A pharmaceutical composition, which comprises the isolated nucleic acid of claim 49 and a pharmaceutically acceptable carrier or excipient.

60. (New) The pharmaceutical composition of claim 59, further comprising an immune response potentiator and/or an anti-neoplasm agent.

61. (New) A pharmaceutical composition, which comprises the substantially purified ErbB-3 protein of claim 56 and a pharmaceutically acceptable carrier or excipient.

62. (New) The pharmaceutical composition of claim 61, further comprising an immune response potentiator and/or an anti-neoplasm agent.

63. (New) An antibody which binds to an ErbB-3 protein, wherein the ErbB-3 protein is a fragment of the extracellular domain of ErbB3 and comprises:

- (a) the amino acid sequence set forth in SEQ ID NO:3; or
- (b) amino acid residues 24-81 of the amino acid sequence set forth in SEQ ID NO:14; or
- (c) amino acid residues 2-139 of the amino acid sequence set forth in SEQ ID NO:16,

wherein the ErbB-3 protein is not the entire extracellular domain of ErbB3.

64. (New) The antibody of claim 63, which is a polyclonal or monoclonal antibody.

65. (New) The antibody of claim 63, which is a human or humanized antibody.

66. (New) A pharmaceutical composition, which comprises the antibody of claim 63 and a pharmaceutically acceptable carrier or excipient.

67. (New) The pharmaceutical composition of claim 66, further comprising an immune response potentiator and/or an anti-neoplasm agent.

68. (New) A vaccine, which comprises the isolated nucleic acid of claim 49 and a pharmaceutically acceptable carrier or excipient.

69. (New) The vaccine of claim 68, further comprising an immune response potentiator.

70. (New) A vaccine, which comprises the substantially purified ErbB-3 protein of claim 56 and a pharmaceutically acceptable carrier or excipient.

71. (New) The vaccine of claim 70, further comprising an immune response potentiator.

72. (New) A kit, which comprises the isolated nucleic acid of claim 49 in a container and an instruction for using the isolated nucleic acid in treating a neoplasm which expresses ErbB-3.

73. (New) A kit, which comprises the substantially purified ErbB-3 protein of claim 56 in a container and an instruction for using the substantially purified ErbB-3 protein in treating a neoplasm which expresses ErbB-3.

74. (New) A combination, which comprises the isolated nucleic acid of claim 49 and an anti-neoplasm agent.

75. (New) The combination of claim 74, further comprising a pharmaceutically acceptable carrier or excipient.

76. (New) A combination, which comprises the substantially purified ErbB-3 protein of claim 56 and an anti-neoplasm agent.

77. (New) The combination of claim 76, further comprising a pharmaceutically acceptable carrier or excipient.